**What Is Claimed Is:**

1. *Bacillus amyloliquefaciens* KTGB0202 (accession number: KCTC 10564BP) having an antifungal activity against plant pathogenic fungi and an inhibitory effect against plant virus infection.

2. The *Bacillus amyloliquefaciens* KTGB0202 of Claim 1, wherein the plant pathogenic fungus is one selected from powdery mildew, *Cladosporium* sp., *Colletotrichum* sp., *Phytophthora* sp., *Botrytis cinerea*, *Rhizoctonia solani*, *Fusarium* sp., *Alternaria* sp., *Magnaporthe grisea*, *Puccinia recondita*, *Corticium sasaki*, and *Candida* sp.

3. The *Bacillus amyloliquefaciens* KTGB0202 of Claim 2, wherein the powdery mildew is one selected from *Sphaerotheca fuliginea* of gourd plants, *S. humuli* of strawberry, *S. pannosa* of rose, *Erysiphe tabacina* of tobacco, *Leveillula taurica* and *Erysiphe cichoracearum* of Solanaceae vegetables, *Leveillula heraclei* of carrots, and *Blumeria graminis* of barley.

4. The *Bacillus amyloliquefaciens* KTGB0202 of Claim 1, wherein the plant virus is tobacco mosaic virus (TMV).

5. A method for controlling plant pathogens using the *Bacillus amyloliquefaciens* KTGB0202 culture broth of Claim 1.

6. A antifungal substance KTGB0202-AF01 showing antifungal activity, which is obtained by extraction and purification from the *Bacillus amyloliquefaciens* KTGB0202 of Claim 1.